

Standardized ketogenic diet demonstrates ‘dramatic beneficial effects’ in patients with NASH

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SAN DIEGO – A weight management program based on the ketogenic diet substantially improved metabolic parameters and markers of liver disease in patients with non-alcoholic steatohepatitis, according to results presented at Digestive Disease Week.

“This study was unique because there have only been two other studies, done 5 and 10 years ago, that used the ketogenic [diet in nonalcoholic fatty liver disease](#),” **Yuliya Belopolsky, MD**, a resident in internal medicine at NorthShore University Health System, told *Healio Gastroenterology*. “This is the first study to look at NASH.”

The ketogenic diet, as well as diets that are calorically restricted, have demonstrated the ability to improve characteristics of metabolic syndrome, including NASH, according to Belopolsky and colleagues. The goal of the current study was to **examine the impact of the “ideal protein diet,”** a standardized, commercially available ketogenic diet, on metabolic parameters and markers of liver disease in patients with NASH.

The researchers performed a retrospective analysis of all patients with NASH from their institution who were referred to the weight management clinic between 2014 and 2018 (n = 43). They used medical records to obtain demographic and laboratory data, including age, sex, weight, BMI, serum glutamic oxaloacetic transaminase, serum glutamic pyruvic transaminase, blood pressure, HbA1c, LDL, HDL, triglycerides, platelets and albumin.

The presence of NASH was assessed with three methods, according to Belopolsky: liver biopsy, magnetic resonance elastography or FibroScan (Echosens). They evaluated noninvasive fibrosis with the FIB-4 index.

Patients were characterized based on their decision to enroll in the protein diet group (n = 38) or decline enrollment (n = 5). The group of patients who chose not to enroll in the program were considered the control arm.

After an average of 6.5 months, participants in the protein diet group exhibited substantial weight loss and improvement in insulin resistance, as demonstrated by HbA1c. In particular, 51% of patients in the protein diet group lost 10% or more of their body weight, which is a weight loss threshold that correlates with fibrosis improvement in NASH. FIB-4 scores and transaminases also declined substantially in this group. Researchers did not report any significant changes in the same data points for the control group.

The findings highlight the “dramatic beneficial effects of the ideal protein weight management regimen” on liver enzymes and a marker of liver fibrosis among a group of patients with NASH, according to Belopolsky and colleagues.

“The well-known beneficial effects on cardiovascular parameters and lipid profiles of the ideal protein protocol have been previously established,” the researchers wrote. “Furthermore, this protocol is structured to maintain the initial weight loss, a feature we consider critically important in our NASH population. Based on these promising results, we are planning to perform a long-term, prospective and randomized study of the ideal protein diet in [patients with NASH].”

The prospective study will follow patients for up to 2 years to determine if the diet can be maintained, according to Belopolsky. - *by Julia Ernst, MS*

Reference:

Belopolsky Y, et al. Abstract Sa1627. Presented at: Digestive Disease Week; May 18-21, 2019; San Diego.

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